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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,459

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Herbert Mosse

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EXAMINER

MILLER, MICHAEL G

ART UNIT

PAPER NUMBER

1712

NOTIFICATION DATE

DELIVERY MODE

01/25/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

aopatent@fulbright.com

Office Action Summary	Application No. 10/598,459	Applicant(s) MOSSE ET AL.	
	Examiner MICHAEL G. MILLER	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64-120 is/are pending in the application.
- 4a) Of the above claim(s) 104-120 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64-103 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>DEC 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 104 – 120 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 04 NOV 2010.
2. Applicant's election with traverse of Claims 64 - 103 in the reply filed on 04 NOV 2010 is acknowledged. The traversal is on the ground(s) that the claims require a flexible portion that matches the curvature of the substrate curved surface which is not taught in the art. This is not found persuasive because as discussed in the previous Office Action, '428 teaches the use of a squeegee to apply a coating to a substrate and a squeegee by definition is flexible. A flexible object can adjust its curvature on contact with a surface..

The requirement is still deemed proper and is therefore made FINAL.

Response to Amendment

3. Examiner notes the amendment filed 04 NOV 2010. As a result of the amendment:
 - a. Claims 1 – 63 are canceled.
 - b. Claims 64 – 120 are new.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1712

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 64-67, 76-95, and 99 – 100 are rejected under 35 U.S.C. 102(b) as being anticipated by Khan et al (U.S. Patent 6,049,428, hereinafter '428).

6. Claim 64 – '428 teaches a method for forming a polarizing coating on a curved surface of a substrate comprising:

- c. a) providing a substrate having a curved surface (Column 21 Lines 22 -24);
- d. b) providing a flexible apparatus (Column 21 Lines 9 – 16; squeegees are inherently flexible);
- e. c) depositing a polarizing liquid on an area of the substrate curved surface or on the flexible apparatus (Column 21 Lines 9 -16);
- f. d) applying the flexible apparatus on the curved surface of the substrate so that the flexible apparatus matches the curvature of the substrate curved surface (inherent; when a flexible substance meets in inflexible one, the contact pressure forces a deformation of the flexible surface);
- g. e) moving the flexible apparatus past the deposited polarizing liquid and the substrate, whereby a film of the polarizing liquid is formed by shear flow on the substrate curved surface (Column 21 Lines 9 – 16; the rolling cylinder squeegee will move past the surface of the lens);
- h. f) drying the film of polarized liquid to form a polarizing coating (Column 21 Lines 60 -63); and

Art Unit: 1712

- i. g) recovering the substrate having a curved surface with a polarized coating thereon (Column 20 Lines 60 -63).
7. Claim 65 - '428 teaches the method of claim 64, wherein the polarizing liquid is disposed on the curved surface prior to shear flow (inherent; regardless of whether the liquid is disposed on the substrate or the squeegee, shear flow will not start until after the liquid is in contact with both of them as the liquid needs two planes to shear between).
8. Claim 66 - '428 teaches the method of claim 64, wherein the polarizing liquid is disposed on the flexible apparatus prior to shear flow (inherent; regardless of whether the liquid is disposed on the substrate or the squeegee, shear flow will not start until after the liquid is in contact with both of them as the liquid needs two planes to shear between).
9. Claim 67 - '428 teaches the method of claim 66, wherein the polarizing liquid is disposed on the periphery of the flexible apparatus (inherent, since the periphery of any object is its outer surface, any liquid contacting the flexible apparatus will automatically be on its periphery).
10. Claim 76 - '428 teaches the method of claim 64, wherein the shear flow is linear shear flow (Column 26 Lines 50 - 63).
11. Claim 77 - '428 teaches the method of claim 64, wherein the flexible apparatus is a flexible rod (Column 21 Lines 9 - 16).
12. Claim 78 - '428 teaches the method of claim 77, wherein the flexible rod is biased to apply a pressure force substantially normal to the holder external surface and substrate curved surfaces during entire moving step (f) (Column 26

Art Unit: 1712

Lines 50 - 63; the shear flow is in the plane of the film, meaning the pressure applied is in the plane of the film).

13. Claim 79 - '428 teaches the method of claim 77, wherein the flexible rod is preformed to an accurate shape prior to application step (e) of the flexible rod on the holder external surface (Column 27 Lines 7 – 15; the cylinder matches the shape of the film).

14. Claim 80 - '428 teaches the method of claim 77, wherein the flexible rod has an external surface provided with a plurality of circumferentially spaced grooves (Column 24 Lines 21 – 30; with an orientation axis of 0 degrees relative to the roller's long axis, the grooves formed between raised wire portions would be circumferential).

15. Claim 81 - '428 teaches the method of claim 77, wherein the flexible rod comprises a flexible core having a wire wrapped around (Column 24 Lines 21-30)

16. Claim 82 - '428 teaches the method of claim 64, wherein the flexible apparatus comprises a circular, rectangular, or spherical portion (Column 27 Lines 7 – 15, the ends of the cylinder are circular).

17. Claim 83 - '428 teaches the method of claim 64, wherein a material is wrapped around the flexible apparatus (Column 24 Lines 21-30)

18. Claim 84 - '428 teaches the method of claim 83, wherein the material is a wire (Column 24 Lines 21-30)

19. Claim 85 - '428 teaches the method of claim 64, wherein the flexible apparatus comprises a groove (Column 27 Lines 7 – 15, the indented portion between the spacer rings is a groove).

Art Unit: 1712

20. Claim 86 - '428 teaches the method of claim 64, wherein the flexible apparatus comprises etching (Column 24 Lines 21-30, chemical engraving = etching).

21. Claim 87 - '428 teaches the method of claim 64, wherein the flexible apparatus comprises a substantially smooth surface (Column 26 Lines 63 – 66, highly polished surfaces).

22. Claim 88 - '428 teaches the method of claim 64, wherein the flexible apparatus is rotatable (Column 21 Lines 9 – 16).

23. Claim 89 - '428 teaches the method of claim 64, wherein the flexible apparatus is not rotatable (Column 21 Lines 9 - 16).

24. Claim 90 - '428 teaches the method of claim 64, where the curved surface has not been treated to create an orientation prior to the coating (Column 21 Lines 21-29, basic glass).

25. Claim 91 - '428 teaches the method of claim 64, where the substrate is coated with a material prior to the rotating (Column 21 Lines 21-29).

26. Claim 92 - '428 teaches the method of claim 91, where the material is an adhesion primer layer (Column 24 Line 66 – Column 25 Line 5).

27. Claim 93 - '428 teaches the method of claim 92, where the adhesion primer layer comprises a coupling agent (inherent, as an adhesive will automatically couple layers together else there is no adhesion).

28. Claim 94 - '428 teaches the method of claim 64, wherein the substrate curved surface is a convex surface (Column 21 Lines 21-23, a spherical substrate is inherently convex on all surfaces).

Art Unit: 1712

29. Claim 95 - '428 teaches the method of claim 64, further comprising adjusting a dye in the polarizing liquid to customize a color of the polarized coating (Column 21 Lines 38-44).
30. Claim 99 - '428 teaches the method of claim 64, where the polarized coating includes lyotropic liquid crystal material (Column 2 Lines 50 - 54).
31. Claim 100 - '428 teaches the method of claim 64, where the surface has not been treated to create an orientation prior to the shear flow (Column 21 Lines 21-29, basic glass).

Claim Rejections - 35 USC § 103

32. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

33. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

34. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any

Art Unit: 1712

inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

35. Claims 68 – 75 and 96 – 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over '428.

36. Claim 68 - '428 teaches the method of claim 64, wherein said substrate is placed in a holder such that the substrate surface is freely accessible said holder having an external surface surrounding the substrate surface (Column 27 Lines 26 – 37). At this point, the only thing missing is an explicit teaching that the substrate is curved. Examiner submits that it would have been obvious at the time the invention was made to perform the coating operation on a curved substrate, as '428 teaches that its methodology can work on substrates with curved surfaces. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments. *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971).

37. Claim 69 - '428 teaches the method of claim 68, wherein the polarizing liquid of step c) is deposited on an area of the holder external surface (Column 27 Lines 27 – 38; as the pressing progresses, some of the excess coating substance will be pressed off the edges of the plate and onto the table).

Art Unit: 1712

38. Claim 70 - '428 teaches the method of claim 69, wherein the polarizing liquid is disposed on the holder between the substrate and the flexible apparatus prior to shear flow (as Claim 69).

39. Claim 71 - '428 teaches the method of claim 70, wherein the polarizing liquid is disposed in a substantially straight line (As Claim 69, the table is moved linearly).

40. Claim 72 - '428 teaches the method of claims 68 wherein the flexible apparatus is applied during step d) on the holder external surface between its periphery and the deposited polarizing liquid (As Claim 69, the spacers rest on the substrate holder).

41. Claim 73 - '428 teaches the method of claim 68, wherein the holder external surface is a curved surface (As Claim 68, in re Susi).

42. Claim 74 - '428 teaches the method of claim 68, wherein the holder external curved surface has the same curvature as the substrate curved surface (As Claim 68, in re Susi).

43. Claim 75 - '428 teaches the method of claim 68, wherein the flexible apparatus is configured to be attached to a holder apparatus (As Claim 68; if the cylinder is held immobile, it is clearly mounted to a holder of some sort)

44. Claims 96 – 98 – '428 teaches all particulars of the claimed invention except for the contrast ratio of the polarized coating. As is well known in the art of optical coatings, the contrast ratio of a polarized coating is a result-effective variable with regards to the transmission properties of the finished optical device. It would have been obvious to a person having ordinary skill in the art at the time

Art Unit: 1712

the invention was made to control the contrast ratio with an eye to the final use of the product, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

45. Claims 101 – 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over '428 in view of Miniutti et al (U.S. PGPub 2004/0145701, hereinafter '701).

46. Claim 101 - '428 teaches the method of claim 64, except wherein the substrate is a lens. '701 teaches a method for forming solid color eyewear lenses, wherein the lenses have coatings applied to them and the coatings comprise dichroics and polarizers (PG 0008). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the invention of '428 to utilize the substrate of '701, as both methods want to deposit dichroic and polarizing materials on a surface and '701 teaches that a lens is a desirable substrate for the purpose.

47. Claim 102 - '428/'701 teaches the method of claim 101, where the curved surface is a convex surface and the lens has a concave surface substantially opposite the convex surface ('701 Figure 4A-4B-5).

48. Claim 103 - '428/'701 teaches the method of claim 101, where the lens further comprises one or more layers disposed on the convex surface ('701 PG 0006).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL G. MILLER whose telephone number is (571)270-1861. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on (571) 272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Miller/
Examiner, Art Unit 1712

/Timothy H Meeks/
Supervisory Patent Examiner, Art Unit 1715